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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,627	06/10/2005	Bernardus Hendrikus Wilhelmus Hendriks	NL021335	8931
24737 7590 07/25/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER DANIELSEN, NATHAN ANDREW				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,627

Applicant(s)

HENDRIKS ET AL.

Examiner

Nathan Danielsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 and 7-11 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-5 and 7-11 are pending. Claim 6 was canceled in applicant's amendment filed 07 April 2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

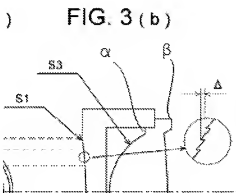
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al (US Patent Application Publication 2003/0185134; hereinafter Kimura), in view of Yamamoto et al (US Patent Application Publication 2003/0026007; hereinafter Yamamoto).

Regarding claim 1, Kimura discloses an optical lens set comprising:

a first lens set element having a first optical axis and including a first lens having a first curved lens surface having a first entrance pupil with a first diameter, said first lens set element is of a first width in a direction perpendicular to said first optical axis (element L2 in figure 3); and

a second lens set element having a second optical axis and including a second lens having a second curved lens surface having a second entrance pupil with a second diameter, said second lens set element having an inner part (element α in figure 3, as shown in the portion of figure 3b on the next page) and an outer part (element β in figure 3, as shown in the portion of figure 3b on the next page) arranged in a direction perpendicular to said second optical axis, said inner part including said second lens (element L1 in figure 3), wherein said first and second lens set elements are adapted to form a lens assembly including said first and second lenses (OBJ2 in figure 3).



However, Kimura fails to disclose where the second diameter is smaller than said first diameter and where the outer part includes a removable part.

In the same field of endeavor, Yamamoto discloses where the lens set is characterized in that said outer part includes a removable part arranged to be removed during an assembly process (elements 41 and 42 in figure 12), said removable part extending to a second width in a direction perpendicular to said second optical axis (element 42 in figure 12), said second width being greater than said first width (inherent in the combination of element L2 of Kimura with elements 42 and 43 of Yamamoto).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Yamamoto, for the purpose of facilitating the manufacturing, assembling, and adjustment of an optical pickup lens and an optical pickup unit (¶ 12). However, Yamamoto also fails to disclose where the second diameter is smaller than said first diameter.

In the same field of endeavor, Kishima discloses where the second diameter is smaller than said first diameter (note the diameters of lenses 6 and 31 in figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Kishima, for the purpose of increasing the numerical aperture of a lens group (¶¶ 5 and 7).

Regarding claim 2, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. However, Kimura, in view of Yamamoto, fails to disclose where the thickness of said

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first lens along said first optical axis is greater than the thickness of said second lens along said second optical axis.

In the same field of endeavor, Kishima discloses where the thickness of said first lens along said first optical axis is greater than the thickness of said second lens along said second optical axis (note the thicknesses of lenses 6 and 31 in figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Kishima, for the purpose of increasing the numerical aperture of a lens group (¶¶s 5 and 7).

Regarding claim 3, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. However, Kimura fails to disclose where a ratio of the thickness of said second lens along said second optical axis divided by said second diameter is at least 0.5.

In the same field of endeavor, Yamamoto discloses where a ratio of the thickness of said second lens along said second optical axis divided by said second diameter is at least 0.5 (note the combined size of elements 41 and 42 as compared to the diameter of element 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Yamamoto, for the purpose of facilitating the manufacturing, assembling, and adjustment of an optical pickup lens and an optical pickup unit (¶¶ 12).

Regarding claim 4, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. Additionally, Kimura discloses where said first width is the maximum width of said first lens set element perpendicular to said first optical axis (element L2 in figure 3). However, Kimura fails to disclose where said second width is the maximum width of said second lens set element perpendicular to said second optical axis.

In the same field of endeavor, Yamamoto discloses where said second width is the maximum width of said second lens set element perpendicular to said second optical axis (note the combined width of elements 41 and 42 as compared to the diameter of element 43 in figure 12).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Yamamoto, for the purpose of facilitating the manufacturing, assembling, and adjustment of an optical pickup lens and an optical pickup unit (¶ 12).

Regarding claim 5, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. Additionally, Kimura discloses where said first or second set element has a protrusion which is shaped to interfit with a surface of said second or first set element, respectively (OBJ2 in figure 3).

Regarding claim 7, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. However, Kimura fails to disclose the further details of the outer and removable parts.

In the same field of endeavor, Yamamoto discloses where:

said outer part comprises an area of reduced thickness in a direction parallel to said second optical axis (note the thickness of element 32 as compared to element 33 in figure 11 (which correspond to elements 42 and 43, respectively, in figure 12), and said removable part is detachable by severing said outer part in said area of reduced thickness (¶ 295).

In the same field of endeavor, Yamamoto discloses where said second width is the maximum width of said second lens set element perpendicular to said second optical axis (note the combined width of elements 41 and 42 as compared to the diameter of element 43 in figure 12).

Regarding claim 8, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. Additionally, Kimura discloses where said inner part is attachable to said first optical element to form a lens stack (note the relationship between element L2 and portion α of element L1 in figure 3, as further detailed on page 3). However, Kimura fails to disclose where the thickness of said removable part of said outer part in a direction parallel to said second optical axis is greater than the maximum thickness of said lens stack when so formed.

In the same field of endeavor, Yamamoto discloses where the thickness of said removable part of said outer part in a direction parallel to said second optical axis is greater than the maximum thickness of

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said lens stack when so formed (note the size of element 41 in figure 12 as compared to element 43, especially in combination with element L2 of Kimura).

In the same field of endeavor, Yamamoto discloses where said second width is the maximum width of said second lens set element perpendicular to said second optical axis (note the combined width of elements 41 and 42 as compared to the diameter of element 43 in figure 12).

Regarding claim 9, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 1. Additionally, Kimura discloses an optical lens assembly comprising the optical lens set as claimed in claim 1, wherein said first and second lens set elements are mutually attached (figures 3 and 4).

Regarding claim 10, Kimura, in view of Yamamoto and Kishima, discloses everything claimed, as applied to claim 9. Additionally, Kimura discloses an optical scanning device for scanning optical record carriers, the device including the optical lens assembly as claimed in claim 9 (figure 4).

Regarding claim 11, Kimura discloses a method of assembling an optical lens set comprising the steps of:

- providing a first lens set element having a first optical axis and including a first lens having a first curved lens surface having a first entrance pupil with a first diameter, said first lens set element being of a first width in a direction perpendicular to said first optical axis (element L2 in figure 3);
- providing a second lens set element having a second optical axis and including a second lens having a curved lens surface having a second entrance pupil with a second diameter, said second lens set element having an inner part (element α in figure 3, as shown in the portion of figure 3b on page 3) and an outer part (element β in figure 3, as shown in the portion of figure 3b on page 3) arranged in a direction perpendicular to said second optical axis, said inner part including said second lens (element L2 in figure 3); and
- attaching said first lens set element to said second lens set element so that said first and second optical axes are aligned with each other (¶ 404).

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However, Kimura fails to disclose the means of the lens set element attachment step, where the second diameter is smaller than said first diameter, and where the outer part includes a removable part which is removed during assembly.

In the same field of endeavor, Yamamoto discloses where the lens set is characterized in that said outer part includes a removable part arranged to be removed during an assembly process (elements 41 and 42 in figure 12), said removable part extending to a second width in a direction perpendicular to said second optical axis (element 42 in figure 12), said second width being greater than said first width (inherent in the combination of element L2 of Kimura with elements 42 and 43 of Yamamoto), and wherein said method further comprises the step of removing said removable part before completing said said optical lens set (§ 295).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Yamamoto, for the purpose of facilitating the manufacturing, assembling, and adjustment of an optical pickup lens and an optical pickup unit (§ 12). However, Yamamoto also fails to disclose the means of the lens set element attachment step and where the second diameter is smaller than said first diameter.

In the same field of endeavor, Kishima discloses where the second diameter is smaller than said first diameter (note the diameters of lenses 6 and 31 in figure 2) and where said first lens set element is attached to said second lens set element by bonding an attachment surface of said first lens set element to an attachment surface of said second lens set element (§ 68).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the lens structure of Kimura with that of Kishima, for the purpose of increasing the numerical aperture of a lens group (§s 5 and 7).

Response to Arguments

4. Applicant's arguments filed 07 April 2008, with respect to the rejection(s) of claim(s) 1-11 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kimura, Yamamoto, and Kishima.

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Closing Remarks/Comments

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571)272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/
Supervisory Patent Examiner, Art Unit
2627

Nathan Danielsen
07/15/2008